BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Roads, Drains and Culverts at Kodigehalli and Surroundings at Kodigehalli in Ward No. 08.

Estimated Cost : Rs. 50.00 Lakhs

Job Code : 008-18-000009

Head of Account : P-3333 Special Comprehensive Works

Name of Agency: Sri P. Vijayababu

Work order No: BBMP/EE/BTP/WO/212/2018-19 Date: 14.01.2019.

Measurements Recarded on :

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20 complete as per specifications.								Cum	
	From Anjaneya Temple road Anganavadi	2x2	30.00			0.90	0.10	10.80		
		1	7.00			0.90	0.10	0.63		
	From Rama Mandhira Road	1	30.00			0.90	0.10	2.70		
		1	28.00			0.90	0.10	2.52		
							Total Qty =	**16.65**		
							Qty Limited to =	**14.94**	465.00	**6947.00**
2	Removing and resetting of footpath slab								Sqm	
		5	30.00			0.75		112.50		
		1	22.00			0.75		16.50		
								129.00		
	Deduction	3	9.00			0.75		20.25		
		2	5.00			0.75		7.50		
		3	7.50			0.75		16.88		
								-44.63		
							Total Qty =	**84.38**	132.00	**11138.00**
3	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum	
	Desilting	5	30.00			0.45	0.60	40.50		
		1	22.00			0.45	0.60	5.94		
		2x2	30.00			0.45	0.60	32.40		
		1	30.00			0.45	0.60	8.10		
		1	28.00			0.45	0.60	7.56		
	For RCC Drain									
	Muneshwara Temple road 5th Cross B/S	2	30.00			0.95	0.85	48.45		
		2	22.50			0.95	0.85	36.34		
		2	30.00			0.95	0.85	48.45		
		2	22.00			0.95	0.85	35.53		
		2	30.00			0.95	0.85	48.45		
		2	28.50			0.95	0.85	46.03		
	Ramamadhira Road 2nd Cross L/S	1	30.00			0.95	0.85	24.23		
		1	24.00			0.95	0.85	19.38		
	Ramamadhira Road L/S to Koushik Hous	1	30.00			0.95	0.85	24.23		
	4th Cross	1	19.00			0.95	0.85	15.34		
		1	20.00			0.95	0.85	16.15		
	Cross Road	3	19.00			0.95	0.85	46.03		
		2	28.00			0.95	0.85	45.22		

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara
Bangalore - 560 092

Assistant Engineer

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
	Over Burden Earth	8	4.50			1.20	0.60	25.92		
	Culvert @ Ramanadhida Road	2	6.50			1.30	0.95	16.06		
		2	5.20			1.30	0.95	12.84		
		1	3.50			1.30	0.95	4.32		
							Total Qty =	607.41	186.00	112978.00
4	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Muneshwara Temple road 5th Cross B/S	2	30.00			0.95	0.15	8.55		
		2	22.50			0.95	0.15	6.41		
		2	30.00			0.95	0.15	8.55		
		2	22.00			0.95	0.15	6.27		
		2	30.00			0.95	0.15	8.55		
		2	28.50			0.95	0.15	8.12		
	Ramamadhira Road 2nd Cross L/S	1	30.00			0.95	0.15	4.28		
		1	24.00			0.95	0.15	3.42		
	Ramamadhira Road L/S to Koushik Hous	1	30.00			0.95	0.15	4.28		
	4th Cross	1	19.00			0.95	0.15	2.71		
		1	20.00			0.95	0.15	2.85		
	Cross Road	3	19.00			0.95	0.15	8.12		
		2	28.00			0.95	0.15	7.98		
	Culvert @ Ramanadhida Road	2	6.50			1.30	0.15	2.54		
		2	5.20			1.30	0.15	2.03		
		1	3.50			1.30	0.15	0.68		
	Drain Wall Side	2x3	52.00			0.10	0.20	6.24		
							Total Qty =	91.57		
							Qty Limited to =	90.89	5348.00	486080.00
5	Providing laying palin / reinforced cement concrete for Box Drain walls of thicknes 10cm to 20 cm including cenmtering shuttering form work etc. complete as per approved drawiong and design MORTH Specification No. 1500,1700,2200 PCC M 20 Grade upto 0.75 m height using concrete mixture etc complete as per specifications.								Cum	
	Bottom Concrete									
	Muneshwara Temple road 5th Cross B/S	2	30.00			0.85	0.15	7.65		
		2	22.50			0.85	0.15	5.74		
		2	30.00			0.85	0.15	7.65		
		2	22.00			0.85	0.15	5.61		
		2	30.00			0.85	0.15	7.65		
		2	28.50			0.85	0.15	7.27		
	Ramamadhira Road 2nd Cross L/S	1	30.00			0.85	0.15	3.83		
		1	24.00			0.85	0.15	3.06		
	Ramamadhira Road L/S to Koushik Hous	1	30.00			0.75	0.15	3.38		
	4th Cross	1	19.00			0.75	0.15	2.14		
		1	20.00			0.75	0.15	2.25		
	Cross Road	3	19.00			0.75	0.15	6.41		
		2	28.00			0.75	0.15	6.30		
	Culvert @ Ramanadhida Road	2	6.50			1.30	0.25	4.23		
		2	5.20			1.30	0.25	3.38		
		1	3.50			1.30	0.25	1.14		
	Side Wall									
	Muneshwara Temple road 5th Cross B/S	2x2	30.00			0.15	0.60	10.80		
		2x2	22.50			0.15	0.60	8.10		
		2x2	30.00			0.15	0.60	10.80		
		2x2	22.00			0.15	0.60	7.92		
		2x2	30.00			0.15	0.60	10.80		
		2x2	28.50			0.15	0.60	10.26		
	Ramamadhira Road 2nd Cross L/S	1x2	30.00			0.15	0.60	5.40		
		1x2	24.00			0.15	0.60	4.32		
	Ramamadhira Road L/S to Koushik Hous	1x2	30.00			0.15	0.60	5.40		
	4th Cross	1x2	19.00			0.15	0.60	3.42		
		1x2	20.00			0.15	0.60	3.60		

Assistant Engineer

Executive Engineer
Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 002

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
	Cross Road	3x2	19.00			0.15	0.60	10.26		
		2x2	28.00			0.15	0.60	10.08		
	Culvert @ Ramanadhida Road	2x2	6.50			0.25	0.60	3.90		
		2x2	5.20			0.25	0.60	3.12		
		2	3.50			0.25	0.60	1.05		
							Total Qty =	186.90		
							Qty Limited to =	169.20	10700.00	1810440.00
6	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500								Tonne	
	10mm dia U Shape									
		522	2.00		1044.00					
		521	2.00		1042.00					
		521	2.00		1042.00					
		520	2.00		1040.00					
		577	2.00		1154.00					
		576	2.00		1152.00					
		538	2.00		1076.00					
					7550.00					
			0.62	Kg/m				**4681.00**	Kgs	
	8 mm dia Distribution									
		2x9	52.50		945.00					
		2x9	52.00		936.00					
		2x9	58.50		1053.00					
		1x9	54.00		486.00					
					3420.00					
			0.39	Kg/m				**1333.80**	Kgs	
	10mm dia U Shape									
		298	2.00		596.00					
		188	2.00		376.00					
		197	2.00		394.00					
		3x188	2.00		1128.00					
		2x177	2.00		708.00					
					3202.00					
			0.62	Kg/m				**1985.24**	Kgs	
	8 mm dia Distribution									
		9	30.00		270.00					
		9	19.00		171.00					
		9	20.00		180.00					
		3x9	19.00		513.00					
		2x9	28.00		504.00					
					1638.00					
			0.39	Kg/m				**638.82**	Kgs	
	12mm dia U Shape									
		2x54	2.30		248.40					
		2x43	2.30		197.80					
		1x29	2.30		66.70					
					512.90					
			0.89	Kg/m				**456.48**	Kgs	
	8 mm dia Distribution									
		2x13	6.50		169.00					
		2x13	5.20		135.20					
		1x13	3.50		45.50					
					349.70					
			0.39	Kg/m				**136.38**	Kgs	
								9231.72		
							Total Qty =	9.23		
							Qty Limited to =	9.15	64243.00	587823.00

Assistant Engineer

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
7	Providing and fixing RCC precast covering slab of 100 mm for drain in cement concrete , M20 using graded granite jelly 20 mm and down size with steel reinforcement including form work lift charges, curing and concrete finishied surfaces of both side etc complete as per specifications.								Sqm	
	A	540	0.60			0.75		243.00		
	B	86	0.60			0.75		38.70		
	C	50	0.60			0.75		22.50		
		31	0.60			0.75		13.95		
		33	0.60			0.75		14.85		
		95	0.60			0.75		42.75		
		93	0.60			0.75		41.85		
	Covering Slab on Existing Drain	280	0.60			0.75		126.00		
	Rmamandhira Road	220	0.60			0.75		99.00		
							Total Qty =	642.60	1500.00	963900.00
8	Providing and fixing 20 cm thick precast RCC Covering slab using reinforcement cement concrete, M20 using graded granite jelly 20 mm and down size with steel reinforcement including form work lift charges, curing and concrete finishied surfaces of both side etc complete as per specifications.								Sqm	
	Culvert @ Ramanadhida Road to	20	0.60			1.50		18.00		
	Anjjaneya Temple Road	16	0.60			1.50		14.40		
		6	0.60			1.50		5.40		
							Total Qty =	37.80		
							Qty Limited to =	31.80	5111.00	162530.00
9	Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	A	0.5x2	52.50			0.35	0.10	1.84		
		0.5x2	52.00			0.35	0.10	1.82		
		0.5x2	58.50			0.35	0.10	2.05		
		0.5	54.00			0.35	0.10	0.95		
		0.5	30.00			0.30	0.10	0.45		
		0.5	19.00			0.30	0.10	0.29		
		0.5	20.00			0.30	0.10	0.30		
		0.5x3	19.00			0.30	0.10	0.86		
		0.5x2	28.00			0.30	0.10	0.84		
							Total Qty =	9.38		
							Total Qty Limited to =	9.35	5767.00	53921.00
									Total	4195757.00
Rupees Forty One Lakh(s) Ninety Five Thousand Seven Hundred Fifty Seven Only										

Assistant Engineer
Ward No. 08

Assistant Executive Engineer
Kodigehalli Sub Division

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Bangalore - 560 092